

**PROGRAM SOLICITATION**  
**Number 84**  
**Small Business**  
**Innovation Research**  
**Program**

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# **DOD PROGRAM SOLICITATION FOR SMALL BUSINESS INNOVATION RESEARCH**

## **1.0 PROGRAM DESCRIPTION**

### **1.1 Introduction**

The Department of Defense (DOD) and its components (Army, Navy, Air Force, Defense Advanced Research Project Agency (DARPA), and Defense Nuclear Agency (DNA). (Hereafter referred to as DOD Components) invite small business firms to submit proposals under this program entitled Small Business Innovation Research (SBIR). Firms with strong research and development capabilities in science or engineering in any of the topic areas described in Appendix D are encouraged to participate. Subject to the availability of funds, DOD and its Components will support high quality research or research and development proposals on innovative concepts related to important defense-related scientific or engineering problems.

Objectives of the DOD-SBIR Program include stimulating technological innovation in the private sector, strengthening the role of small business in meeting DOD research and development needs. Fostering and encouraging participation by minority and disadvantaged persons in technological innovation, and increasing the commercial application of DOD-supported research or research and development results.

The Federal SBIR program is mandated by public law, but the scope and intent have solid foundation in DOD. The Department of Defense committed itself, with the inception of the Defense Small Business Advance Technology (DESAT) Program in 1981, to encourage and marshall the ingenuity and technological capability of the nation's small businesses to address problems of importance to DOD. Under DESAT, over 1000 proposals were reviewed resulting in 97 awards, totaling \$4.73 million. The commitment to encourage small business continues in the DOD SBIR program, the basic design of which is in accordance with the Small Business Administrative (SBA) National Directive, #65-01. The DOD program presented in this solicitation brochure strives to encourage scientific and technical innovation in areas specifically identified by DOD components. The guidelines presented in the next section incorporate and exploit the flexibility of the SBA National Directive to encourage proposals based on scientific and technical approaches most likely to yield results important to DOD, rather than proposals focused on and built around a specific dollar level. As in DESAT, and in accordance with the National Directive, the DOD-SBIR Program is a three phase program as described in the text that follows.

### **1.2 Three Phase Program**

This program solicitation is issued pursuant to the Small Business Innovation Development Act of 1982, Public Law 97-219. Under Phase I, DOD Components anticipate making awards during fiscal year 1984 to small businesses typically of one-half to one man-year effort over a period is generally not to exceed six months, subject to negotiation. Phase I is to determine, insofar as possible, the scientific or technical merit and feasibility of ideas submitted under the SBIR program. Proposals should concentrate on that research or research and development which will significantly contribute to proving the scientific or technical feasibility of the proposed effort, the successful completion of which is a prerequisite for further DOD support in Phase II.

Subsequent Phase II awards will be made only to firms on the basis of results from the Phase I effort, and the scientific and technical merit of the Phase II proposal. Phase II awards will typically cover 2 to 5 man-years of effort over a period generally not to exceed 24 months, subject to negotiation. The number of Phase II awards will depend upon Phase I results and availability of funds. Phase II is the principal research or research and development effort: it will require a more comprehensive proposal, which outlines the proposed effort in detail.

Under Phase III, non-Federal capital is expected to be used by the small business to pursue commercial applications of the research or development. Also, under Phase III, Federal agencies may award nonSBIR funded follow-on contracts for products or processes which meet the mission needs of those agencies.

Both Phase I and II contracts may include a profit or fee.

This solicitation is for Phase I proposals only. Any proposal submitted under SBIR solicitation DOD 83.1 will not be considered under this solicitation. However offerors who were not awarded a contract in response to a

particular topic under SBIR solicitation 83.1 are free to submit the same or modified proposal if it is responsive to any of the topics listed in the Appendix D hereto.

For Phase II, no separate solicitation will be issued as only those sources will be considered which were awarded Phase I contracts (see 5.3 and 6.1)

DOD is not obligated to make any awards under either Phase I, II or III. DOD is not responsible for any monies expended by the proposer before award of any contract.

### **1.3 Follow-on Funding**

In addition to supporting scientific and engineering research and development, another important goal of the solicitation is the conversion of DOD supported research or research and development into technological innovation by private firms. Therefore, on an optional basis, the DOD program includes an incentive for proposers to obtain a contingent commitment for private follow-on funding prior to Phase II to continue the innovation process where it is felt that the research and development also have commercial potential.

Proposers who feel that their research or research and development has the potential to meet market needs, in addition to meeting the DOD objectives, are encouraged to obtain non-Federal follow-on funding to pursue the development phase. The commitment should be obtained during the course of Phase I performance. This commitment should be obtained during the course of Phase I performance. This commitment may be contingent on the DOD supported research or development meeting some specific technical objectives in Phase II which, if set, would justify non-Federal funding to pursue further development for commercial purposes in Phase III. When several Phase II proposals are evaluated as being of approximately equal merit, proposals that demonstrate such a commitment for follow-on funding will receive extra consideration during the evaluation process.

The recipient will be permitted to obtain commercial rights to any invention made in either Phase I or II, subject to the patent policies as stated in this solicitation.

### **1.4 Eligibility and Limitations**

Each proposer must qualify as a small business for research or research and development purposes as defined in Section 2.0 and certify to this on the cover sheet (Appendix A) of his proposal. In addition, a minimum of two-thirds of each SBIR project must be carried out by the proposing firm. For Phase II a minimum of one-half of the effort must be performed by the proposing firm. For both Phase I and II the primary employment of the principal investigator must be with the small business firm at the time of award and during the conduct of the proposed effort. Primary employment means that more than one-half of the principal investigator's time is spent with the small business. Deviating from these requirements must be approved in writing by the contracting officer.

For both Phase I and Phase II the research or R&D work must be performed by the small business concern in the United States. "United States" means the several states, the Territories and possessions of the United States, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, and the District of Columbia.

Joint ventures and limited partnerships are permitted, provided the entity created qualifies as a small business in accordance with the Small Business Act, 15 USC 631, and the definition included in this solicitation.

Conflicts of Interest. Awards made to firms owned by or employing current or previous Federal Government employees could create conflicts of interest for those employees in violation of the Ethics in Government Act of 1978 (P.L. 95-521, as amended by P.L. 96-19 and P.L. 96-28). Such proposers should contact the cognizant Ethics Counsellor of the DOD component for further guidance.

## **2.0 DEFINITIONS**

The following definitions apply for the purpose of this solicitation:

### **2.1 Research or Research and Development**

Any activity which is (A) a systematic, intensive study directed toward greater knowledge or understanding of the subject studied; (B) a systematic study directed specifically toward applying new knowledge to meet a recognized need; or (C) a systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements. In DOD's R&D Program the definitions A, B, and C above correspond respectively as follows: (A) Basic Research, (B) Exploratory Development, and (C) Advanced Development or Engineering Development.

### **2.2 Small Business**

A small business concern is one that, at the time of award of a Phase I or Phase II contract:

- (1) Is independently owned and operated and organized for profit, is not dominant in the field of operation in which it is proposing, and has its principal place of business located in the United States;
- (2) Is at least 51 percent owned, or in the case of publicly owned business, at least 51 percent of its voting stock is owned by United States citizens or lawfully admitted permanent resident aliens;
- (3) Has, including its affiliates, a number of employees not exceeding 500, and meets the other regulatory requirements found in 13 CFR Part 121. Business concerns, other than investment companies licensed, or state development companies qualifying under the Small Business Investment Act of 1958, 15 U.S.C. 661, et seq., are affiliates of one another when either directly or indirectly (A) one concern controls or has the power to control the other; or (B) a third party or parties controls or has the power to control both. Control can be exercised through common ownership, common management, and contractual relationships. The term "affiliates" is defined in greater detail in 13 CFR 121.3-2(a). The term "number of employees" is defined in 13 CFR 121.3-2(t). Business concerns include, but are not limited to, any individual, partnership, corporation, joint venture, association or cooperative.

### **2.3 Minority and Disadvantaged Small Business**

A small business that is:

- a. At least 51% owned by one or more minority and disadvantaged individuals; or, in the case of any publicly owned business, at least 51% of the voting stock of which is owned by one or more minority and disadvantaged individuals; and
- b. Whose management and daily business operations are controlled by one or more of such individuals.

While these individuals and small concerns will be required to compete for SBIR on the same basis as all other small business, attention will be given to a special outreach effort to ensure that minority and disadvantaged firms will have notice of this solicitation.

A minority and disadvantaged individual is defined as a member of any of the following groups: Black Americans; Hispanic Americans; Native Americans; Asian-Pacific Americans; or Asian-Indian Americans.

### **2.4 Women-owned Small Business**

A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management.

### **3.0 TECHNICAL TOPICS**

#### **3.1 Phase I Topic List**

Topics for each DOD Component are listed and numbered separately. Topics and topic descriptions are provided in Appendix D.

### **4.0 PHASE I PROPOSAL PREPARATION INSTRUCTIONS AND REQUIREMENTS**

#### **4.1 Proposal Requirements**

A proposal to any DOD component under the SBIR program is to provide sufficient information to persuade the DOD component that the proposed work represents a sound approach to the investigation of an important scientific or engineering problem and it worthy of support under that stated criteria.

A proposal should be self-contained and written with care and thoroughness. Each proposal should be reviewed carefully by the offeror to ensure inclusion of all data essential for evaluation.

The scientific or technical merit of the proposed research or research and development is the primary concern for all research and development supported by the DOD. A proposal must respond to only one of the topics listed in Appendix D. An organization may submit separate proposals on different topics or different proposals on the same topic but each proposal must be limited to one topic. Where similar research and development is discussed in more than one topic description of which appears most relevant to the proposer's technical concept.

The quality of the scientific or technical content of the proposal will be the principal basis upon which proposals will be evaluated. The proposed research or research and development must be responsive to the DOD program objectives, but can also server as the base for technological innovation, new commercial products, processes, or services which benefit the public.

If a proposal substantially the same as the one submitted in response to this solicitation has been previously funded or is either funded by, pending with, or about to be submitted to another Federal agency or another DOD Component, or to the same DOD Component as a separate action, the proposer must so indicate and provide the information required by Section 4.4(12).

#### **4.2 Proprietary Information**

If information is provided which constitutes a trade secret, proprietary, commercial, or financial information, confidential personal information, or data affecting the national security, it will be treated in confidence to the extent permitted by law, provided it is clearly marked in accordance with section 6.7.

#### **4.3 General Content**

This solicitation is designed to reduce the investment of time and cost to small firms in preparing a formal proposal. Those who wish to respond must submit a direct, concise, and informative research or research and development proposal of no more than 25 pages, (no type smaller than elite on standard 8 1/2" x 11" paper) including proposal cover sheet (Appendix A), Project Summary (Appendix B) and Cost Proposal (Appendix C) and any enclosures and attachments. Promotional and non-project-related discussion is discouraged. Cover all items listed below in the order given. The space allocated to each will depend on the problem chosen and the principal investigator's approach. In the interest of equity, no additional attachments appendices or references beyond the 25-page limitation will be considered in proposal evaluation, and proposals in excess of the 25-page limitation will not be considered for review or award.

The proposal must address the research or research and development proposed on the specific topic chosen. It is not necessary to provide a lengthy discourse on the commercial applications in the Phase I proposal except to discuss them briefly as described in Section 4.4, items 2 and 8.

#### 4.4 Phase I proposal Format

All pages shall be consecutively numbered.

- (1) Cover Sheet – Photocopy and complete the form in Appendix A as page 1 of each copy of each proposal.
- (2) Project Summary – Photocopy and complete the form identified as Appendix B as page 2 of your proposal. The technical abstract should include a brief description of the project objectives, and description of the effort. Anticipated benefits and commercial applications of the proposed research or research and development should be summarized in the space provided. The Project Summary of successful proposals will be submitted by DOD to SBA for publication and, therefore, should not contain proprietary or classified information.
- (3) Identification and Significance of the Problem or Opportunity – Define the specific technical problem or opportunity addressed and its importance. (Begin on page 3 of your proposal.)
- (4) Phase I Technical Objectives – Enumerate the specific objectives of the Phase I work, including the questions it will try to answer to determine the feasibility of the proposed approach.
- (5) Phase I Work Plan – This section must provide an explicit, detailed description of the Phase I approach. The plan should indicate not only what is planned but how and where the work will be carried out. Phase I efforts should attempt to determine the technical feasibility of the proposed concept. The methods planned to achieve each objective or task should be discussed explicitly and in detail. This section should be a substantial portion of the total proposal.
- (6) Related Work – Describe significant activities directly related to the proposed effort, including any conducted by the principal investigator, by the proposing firm, consultants, and any planned coordination with faces with the proposed project, and any planned coordination with outside sources. The proposal must persuade reviewers of the proposer's awareness of the state-of-the-art in the specific topic.
- (7) Relationship with Future Research or Research and Development.
  - a. State the anticipated results of the proposed approach if the project is successful.
  - b. Discuss the significance of the Phase I effort in providing a foundation for Phase II research or research and development effort.
- (8) Potential Post Applications. Briefly Describe:
  - a. Whether and by what means the proposed project appears to have potential commercial application.
  - b. Whether and by what means the proposed project appears to have potential use by the Federal Government.
- (9) Key Personnel – Identify key personnel who will be involved in the Phase I effort including information on directly related education and experience. A resume of the principal investigator, including a list of publications (if any), must be included.
- (10) Facilities/Equipment – Describe available instrumentation and physical facilities necessary to carry out the Phase I effort. Items of equipment to be purchased (as detailed in Appendix C) shall be justified under this section.
- (11) Consultants – Involvement of university or other consultants in the planning and/or research stages of the project may be appropriate. If such involvement is intended, it should be described in detail and included in Appendix C (if appropriate). For Phase I, the total of all consultant fees, facility leases or usage fees and other subcontract or purchase agreements may not exceed 33% of the total contract price or cost, unless otherwise approved in writing by the contracting officer.
- (12) Current and Pending Support – If a proposal substantially the same as the one submitted in response to this solicitation has been previously funded or is either funded by, pending with, or about to be submitted to another Federal Agency, or another DOD Component or to the same DOD Component in a separate action, the proposer must provide the following information:
  - a. The name and address of the agency(s) or DOD Component to which a proposal was submitted, or will be submitted, or from which an award is expected or has been received.
  - b. Date of proposal submission or date of award.
  - c. Title of proposal.
  - d. Name and title of principal investigator for each proposal submitted or award received.
  - e. Title, number, and date of solicitation(s) under which the proposal was submitted or will be submitted or under which award is expected or has been received.
  - f. If award was received, state contract number.

- g. Specify the applicable topics for each pending SBIR proposal submitted or award received.
- (13) Cost Proposal – complete the cost proposal in the form of Appendix C for the Phase I effort only.  
Under the direct labor category, list all key personnel by name as well as by number of hours dedicated to the project. (See also Section 6.8)
- (14) Bindings – Do not use special bindings or covers. Staple the pages in the upper left hand corner of each proposal.
- (15) Submission – in accordance with Section 7.

## **5.0 METHOD OF SELECTION AND EVALUATION CRITERIA**

### **5.1 Introduction**

Phase I proposals will be evaluated on a competitive basis. Proposals meeting stated solicitation requirements will be evaluated by scientists or engineers knowledgeable in the topic area. Proposals will be evaluated first on their relevance to the chosen topic. Those found to be relevant will then be evaluated using the criteria listed in Section 5.2. Final decisions will be made by the DOD Component based upon these criteria and consideration of other factors, including possible duplication of other research, and program balance. A DOD Component may elect to fund several or none of the proposed approaches to the same topic. In the evaluation and handling of proposals, every effort will be made to protect the confidentiality of the proposal and any evaluations. There is no commitment by the DOD Components to make any awards on any topic, to make a specific number of awards or to be responsible for any monies expended by the proposer before award of a contract.

For proposals that have been selected for contract award, a government contracting officer will draw up any appropriate contract to be signed by both parties before work begins. Any negotiations that may be necessary will be conducted between the offeror and the government contracting officer. It should be noted that only a duly appointed contracting officer has the authority to enter into a contract on behalf of the U.S. Government.

Phase II proposals will be subject to a technical review process similar to Phase I. Final decisions will be made by DOD Components based upon the scientific and technical evaluations and other factors, including a commitment for Phase III follow-on funding, the possible duplication with other research, development, program balance, and budget limitations.

### **5.2 Evaluation Criteria – Phase I**

The DOD components plan to select for award those proposals offering the best value to the Government with approximately equal consideration given to each of the following criteria, except for number one which will receive twice the value of any other item:

- (1) The scientific/technical quality of the Phase I research or research and development proposal and its relevance to the topic description, with special emphasis on its innovation and originality.
- (2) Qualifications of the principal investigator, other key staff, and consultants, if any, and the adequacy of available or obtainable instrumentation and facilities.
- (3) Anticipated benefits of the research or research and development to the total DOD research and development effort.
- (4) Adequacy of the Phase I proposed effort to show progress toward demonstrating the feasibility of the concept.

Where technical evaluations are essentially equal in merit, cost to the Government will be considered in determining the successful offeror.

Technical reviewers will base their conclusions only on information contained in the proposal. It cannot be assumed that reviewers are acquainted with the firm or key individuals or any referred-to experiments. Relevant supporting data such as journal articles, literature, including government publications, etc., should be identified in the proposal.

### **5.3 Evaluation Criteria – Phase II**

A Phase II proposal can be submitted only by a Phase I awardee. Phase II is not initiated by a solicitation. Detailed instructions regarding Phase II proposal submission will be sent by DOD Components to all Phase I award winners. Listed below are some of the principles upon which those instructions can be expected to be based.

A Phase II proposal can be submitted at any time when progress attained under Phase I is deemed sufficient to justify the effort to be proposed for Phase II. (But see Section 6.1.) It must contain enough information on progress accomplished under Phase I by the time of Phase II proposal submission to enable an evaluation of the project's promise if continued into Phase II. The Phase II proposal will be reviewed for overall merit based upon the criteria below. Each item will receive approximately equal weight, except for item one, which will receive twice the value of any other item:

- (1) The scientific/technical quality of the proposal, with special emphasis on its innovation and originality.
- (2) The qualifications of the principal investigator and other key personnel to carry out the proposed work.
- (3) Anticipated benefits of the research or development to the total DOD research and development effort.
- (4) Degree to which the Phase I objectives were met at the time of Phase II proposal submission
- (5) The adequacy of the Phase II objectives to meet the problem or opportunity.

Phase II proposal evaluations may include on-site evaluations by Government personnel of the Phase I effort.

The reasonableness of the proposed costs of the effort to be performed will be examined to determine those proposals that offer the best value to the Government.

In the case of the proposals of approximately equal merit, the provision of a follow-on Phase III funding commitment for continued development from non-Federal funding sources will be a special consideration. The follow-on funding commitment must provide that a special amount of Phase II funds will be made available to or by the small business and indicate the dates the funds will be made available. It must also contain specific technical objectives which, if achieved in Phase II, will make the contingent upon the obtaining of a patent due to the length of time this process requires. The funding commitment shall be submitted with the Phase II proposal.

## **6.0 CONTRACTUAL CONSIDERATIONS**

### **6.1 Awards**

The number of Phase I awards will be consistent with the agency's RDT&E budget, the number of anticipated awards for interim period Phase I modifications, and Phase II contracts.

No Phase I contracts will be awarded until all qualified proposals (received in accordance with section 7.2) on a specific topic have been evaluated. Phase I selectees are expected to be notified no later than June 30, 1984. DOD Components will announce the names of those firms receiving awards.

The number of the Phase I awardees that will receive Phase II awards will depend upon the results of the Phase I efforts and the availability of funds. Phase II is to further develop ideas explored under Phase I. Specific instructions for the preparation of Phase II proposals will be sent to Phase I awardees by the DOD Components. Those Phase II proposers who wish to maintain project continuity must submit proposals no later than 30 days prior to the expiration date of the Phase I contract and should identify in their proposal the work to be performed for the first four months of the Phase II work and the costs associated therewith.

Offerors for Phase II work who do not elect to submit a proposal 30 days prior to the expiration date of the Phase I contract, have the option to submit a proposal after the completion of the Phase I contract. The final date for receipt of a Phase II proposal will be not later than 90 calendar days after the completion of the Phase I contract.

The period of performance under Phase II will depend upon the scope of the effort, but generally will not exceed 24 months. Phase II award decisions will be based upon evaluation of progress attained under Phase I and of the Phase II proposal. Phase II awards will typically cover 2 to 5 man-years effort, depending upon the scope of research or development.

### **6.2 Reports**

Six copies of a final report on the Phase I project must be submitted to the DOD Component in accordance with the negotiated delivery schedule. This will normally be within thirty days after completion of the Phase I effort. The final report shall include a single-page project summary as the first page identifying the purpose of the work, a brief description of the work carried out, the findings or results, and potential applications of the effort. The summary may be published by DOD and therefore must not contain proprietary or classified information. The balance of the report should indicate in detail the project objectives, work carried out, results obtained, and estimates of technical feasibility.

To avoid duplication of effort, language used to report Phase I progress in a Phase II proposal, if submitted, may be used verbatim in the final report with changes only to accommodate results obtained after Phase II proposal submission, and modifications required to integrate the final report into a self-contained, comprehensive and logically structured document.

### **6.3 Payment Schedule**

Payments will be made in accordance with a payment schedule agreed to by the Contracting Officer. Requests for progress payments or advance payments based upon demonstrated need will be considered. The offeror shall include his cash flow requirements as part of the cost proposal submission for Phase I.

### **6.4 Technical Data**

Rights in technical data, including software, developed under the terms of any contract resulting from proposals submitted in response to this solicitation shall remain with the contractor, except that the Government shall have the limited right to use such data for Government purposes and shall not release such data outside the Government without permission of the contractor for a period of two years from the completion of the project from which the data was generated unless the data has already been released to the general public. However, effective at the conclusion of the two-year period, the Government shall retain a royalty-free license for Government use of any technical data delivered under an SBIR funding agreement whether patented or not.

## **6.5 Copyrights**

With prior written permission of the contracting officer, the awardee normally may copyright (consistent with appropriate national security considerations, if any) material developed with DOD support. DOD receives a royalty-free license for the Federal Government and requires that each publication contain an appropriate acknowledgement and disclaimer statement.

## **6.6 Patents**

Small business firms normally may retain the principal worldwide patent rights to any invention developed with Government support. The government receives a royalty-free license for its use, reserves the right to require the patentholder to license others in certain limited circumstances, and requires that anyone exclusively licensed to sell the invention in the United States must normally manufacture it domestically. To the extent authorized by 35 USC 205, the Government will not make public any information disclosing a Government-supported invention for a two-year period to allow the awardee a reasonable time to pursue a patent.

## **6.7 Markings of Proprietary or Classified Proposal Information**

The proposal submitted in response to this solicitation may contain technical and other data, including trade secrets and/or privileged or confidential commercial or financial information, which the proposer does not want disclosed to the public or used by the Government for any purpose other than proposal evaluation.

Information contained in unsuccessful proposals will remain the property of the proposer. The government may, however, retain copies of all proposals. Public release of information in any proposal submitted will be subject to existing statutory and regulatory requirements.

If proprietary information is provided by a proposer in a proposal which constitutes a trade secret, proprietary commercial or financial information, confidential personal information or data affecting the national security, it will be treated in confidence, to the extent permitted by law, provided this information is clearly marked by the proposer with the term "confidential proprietary information" and provided the following legend appears on the title page of the proposal:

"For any purpose other than to evaluate the proposal, this data shall not be disclosed outside the government and shall not be duplicated, used, or disclosed in whole or in part, provided that is a contract is awarded to this proposer as a result of or in connection with the submission of this data, the government shall have the right to duplicate, use, or disclose the data to the extent provided in the contract. This restriction does not limit the government's right to use information contained in the data if it is obtained from another source without restriction. The data subject to this restriction is contained in pages \_\_\_\_ of this proposal."

Any other legend may be unacceptable to the government and may constitute grounds for removing the proposal from further consideration and without assuming any liability for inadvertent disclosure. The government will limit dissemination of properly marked information to within official channels.

In addition, each page of the proposal containing proprietary data which the proposer wishes to restrict must be marked with the following legend:

"Use or disclosure of the proposal data on lines specifically identified by asterisk (\*) are subject to the restriction on the cover page of this proposal."

The government assumes no liability for disclosure or use of unmarked data and may use or disclose such data for any purpose.

In this event properly marked data contained in a proposal in response to this solicitation is requested pursuant to the Freedom of Information Act, 5 USC 552, the proposer will be advised of such request and prior to such release of information he will be requested to expeditiously submit to the DOD Component a detailed listing of all information in his proposal which he believes to be exempt from disclosure under the Act. Such action and cooperation on the part of the proposer will ensure that any information released by the DOD Component pursuant to the Act is properly determined.

Those proposers that have classified facility clearance may submit classified material with their proposal. Any classified material shall be marked and handled in accordance with applicable regulations. Arbitrary and unwarranted use of this restriction is discouraged. Offerors must follow the Industrial Security Manual for Safeguarding Classified Information (DOD 5220.22M) procedures for marking and handling classified material.

## **6.8 Cost Proposal**

A firm fixed price or cost plus fixed fee Phase I proposal must be submitted in detail in the format shown in Appendix C. Some items of Appendix C may not apply to the proposed project. If such in the case, there is no need to provide information for each and every item. What matters is that enough information be provided to allow the DOD Component to understand how the proposer plans to use the requested funds if the contract is awarded. Both Phase I and II contracts may include a profit or fee.

### **(1) Special Tooling and Test Equipment, and Material**

Special tooling and test equipment and material cost may be included under Phase I and II. The inclusion of equipment and material will be carefully reviewed relative to need and appropriateness for the work proposed.

The purchase of special tooling and test equipment must, in the opinion of the Contracting Officer, be advantageous to the Government and should be related directly to the specific topic. They may include such items as innovative instrumentation and/or automatic test equipment. Title to property furnished by the Government or acquired for the Government will be vested with the DOD Component, unless it is determined that transfer of title to the contractor would be more cost effective than recovery of the equipment by the DOD Component.

### **(2) Travel**

Cost for travel funds must be justified and related to the needs of the project.

### **(3) Cost-Sharing**

Cost-sharing is permitted for proposals under this solicitation; however, cost-sharing is not required nor will it be an evaluation factor in the consideration of a proposal.

## **6.9 Contractor Commitments**

Upon award of a contract, the contractor will be required to make certain legal commitments through acceptance of government contract clauses in the Phase I contract. The outline that follows is illustrative of the types of provisions that will be included in the Phase I contract. This is not a complete list of provisions to be included in Phase I contracts, nor does it contain specific wording of these clauses. Copies of complete general provisions will be made available prior to award.

- (1) Standards of Work. Work performed under the contract must conform to high professional standards
- (2) Inspection. Work performed under the contract is subject to a Government inspection and evaluation at all reasonable times.
- (3) Examination of Records. The Comptroller General (or a fully authorized representative) shall have the right to examine any directly pertinent records of the contractor involving transactions related to this contract.
- (4) Default. The government may terminate the contract if the contractor fails to perform the work contracted.
- (5) Termination for Convenience. The contract may be terminated at any time by the Government if it deems termination to be in its best interest, in which case the contractor will be compensated for work performed and for reasonable termination costs.
- (6) Disputes. Any dispute concerning the contract which cannot be resolved by agreement shall be decided by the contracting officer with right of appeal.
- (7) Contract Work Hours. The contractor may not require an employee to work more than eight hours a day or forty hours a week unless the employee is compensated accordingly (that is, receives overtime pay).
- (8) Equal Opportunity. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.
- (9) Affirmative Action for Veterans. The contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era.

- (10) Affirmative Action for Handicapped. The contractor will not discriminate against any employee or applicant for employment because he or she is physically or mentally handicapped.
- (11) Officials Not to Benefit. No member of or delegate to Congress shall benefit from the contract.
- (12) Covenant Against Contingent Fees. No person or agency has been employed to solicit or secure the contract upon an understanding for compensation except bonafide employees or commercial agencies maintained by the contractor for the purpose of securing business.
- (13) Gratuities. The contract may be terminated by the Government if any gratuities have been offered to any representative of the Government to secure the contract.
- (14) Patent Infringement. The contractor shall report each notice or claim of patent infringement based on the performance of the contract.
- (15) Military Security requirements. The Contractor shall safeguard any classified information associated with the contracted work in accordance with applicable regulations.

## **7.0 SUBMISSION OF PROPOSALS**

Five (5) copies of each proposal or modification will be submitted, in a single package, as described below.

### **7.1 Address**

Proposals (5 copies) and modifications thereof must be addressed to that DOD Component address which is identified for each topic in each Component's section of Appendix D to this solicitation.

One copy must be an original signed by the principal investigator and an official empowered to commit the proposer. Other copies may be photocopied.

The name and address of the offeror, the solicitation number and the topic number for the proposal must be clearly marked on the face of the envelope or wrapper.

Mailed or handcarried proposals must be delivered to the address indicated for each topic. Secure packaging is mandatory. The DOD Component cannot be responsible for the processing or proposals damaged in transit.

All copies of a proposal should be sent in the same package. Do not send separate "information" copies or several packages containing parts of the single proposal.

### **7.2 Deadline for Proposals**

Deadline for receipt (5 copies) at the DOD Component is 2:00 p.m. local time, 12 January 1984. Any proposal received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before an award is made, and: (1) it was sent by registered or certified mail not later than January 5, 1984; or (2) it was sent by mail and it is determined by the Government that the late receipt was due solely to mishandling by the Government after receipt at the Government installation; or (3) it is the only proposal received.

The only acceptable evidence to establish (1) the date of the mailing of a late received proposal sent either by registered mail or certified mail is the U.S. Postal Service postmark on the wrapper or on the original receipt from the U.S. Postal Service. If neither postmark shows a legible date, the proposal shall be deemed to have been mailed late. The term "postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed on the date of mailing by employees of the U.S. Postal Service. Therefore, offerors should request the postal clerk to place a cancellation bull's-eye "postmark" on both the receipt and the envelope or wrapper; (2) the time of receipt at the Government installation is the time-date stamp of such installation on the proposal wrapper or other documentary evidence of receipt maintained by the installation.

Proposals may be withdrawn by written notice or a telegram received at any time prior to award. Proposals may also be withdrawn in person by an offeror or his authorized representative, provided his identity is made known and he signs a receipt for the proposal prior to award. (NOTE: the term "telegram" includes mailgrams.)

Any modification or withdrawal of a proposal is subject to the same conditions outlined above. Any modification may not make the proposal longer than 25 pages. Notwithstanding the above, a late modification of an otherwise successful proposal which makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

## **8.0 SCIENTIFIC AND TECHNICAL INFORMATION ASSISTANCE**

### **DOD Technical Information Services Available**

Recognizing that small businesses may not have strong technical information service support, the Defense Technical Information Center (DTIC) is prepared to give special attention to the needs of DOD SBIR Program participants. Persons preparing SBIR Program proposals to DOD can strengthen them by contacting DTIC for bibliographic citations of unclassified technical reports that have resulted from prior DOD-funded R&D, for copies of the technical reports which are cited in these bibliographies, and for information about DOD-sponsored work currently in progress in their proposal topic area.

As the central source of scientific and technical information resulting from and describing R&D projects that are wholly, or partially, funded by DOD, DTIC searches this information for registered requesters. Reasonable quantities of paper or microfiche copies of requested documents are available for SBIR Program proposal preparation.

DTIC also manages nine DOD-sponsored Information Analysis Centers (IACs) which provide informational and consultative services performed by specialists doing R&D in subject and mission areas assigned to the IACS. DTIC SBIR service will include information about these and other DOD sponsored IACs.

DTIC assistance shall include references to other sources of scientific and technical information needed to prepare SBIR Program proposals to DOD. Call or visit DTIC at the following location which is most convenient to you.

All written communications with DTIC must be made to the Cameron Station, Alexandria, VA, address.

Defense Technical Information Center  
ATTN: DTIC-SBIR  
Building 5, Cameron Station  
Alexandria, VA 22314  
(800) 368-5211 (Toll free)  
(202) 274-6902/03 (Commercial for  
Virginia, Alaska and Hawaii)

DTIC Boston On-Line Service Facility  
AFGL Research Library / SULL  
Building 1103, Hanscom AFB  
Bedford, MA 01731  
(617) 861-2413

DTIC Los Angeles On-Line Service Facility  
Defense Contract Administration Services Region  
11099 South La Cienega Blvd,  
Los Angeles, CA 90045  
(213) 643-1108

Use reference A at the back of this solicitation to request background bibliographies and descriptions of work in progress related to those topic areas which you plan to pursue under this solicitation. DTIC will return the material you request, annotated with a temporary User Code. This User Code is to be used by you when requesting additional information or when ordering documents cited in a bibliography until the solicitation closing date.

Because solicitation response time is limited, submit you requests for DTIC's information services as soon as possible.

## **9.0 CONTACT WITH DOD**

### **9.1 Oral Communications**

Oral Communications with DOD components regarding this solicitation during the Phase I proposal period are prohibited for reasons of competitive fairness, with the exceptions as stated in Sections 1.4, 8.0 and 9.7

### **9.2 Questions Pertaining to This Solicitation**

Questions pertaining to this solicitation should be addressed in writing to the address listed at the beginning of each DOD Component listing of topics (See Appendix D). No telephone will be accepted except as stated in Section 9.1.

### **9.3 Requests for Additional Copies of This Solicitation**

Additional copies of this solicitation can be ordered from the Defense Technical Information Center, DTIC/SBIR, Attn: Reference Section, Cameron Station, Alexandria, Virginia 22314; (telephone (202) 274-7633.)

### **9.4 Information on Proposal Status**

Evaluation of proposals and award of contracts will be expedited but no information on proposal status will be available until the final selection is made. However, contracting officers may contact any and all qualified proposers prior to contract award.

### **9.5 Debriefing of Unsuccessful Offerors**

After final award decisions have been announced a debriefing may be provided to unsuccessful offerors, on their proposals only, upon written request.

### **9.6 Correspondence Relating to Proposals**

All correspondence relating to proposals should cite the SBIR solicitation number, specific topic number and be addressed to the DOD Component whose address is associated with each topic number.

### **9.7 Counseling Assistance Available**

Small business firms interested in participating in the SBIR Program may seek general administrative guidance from small and disadvantaged business utilization specialists located in various Defense Contract Administration Services (DCAS) activities throughout continental United States. These specialists are available to discuss general administrative requirements to facilitate the submission of proposals and ease the entry of the small high technology business into the Department of Defense marketplace. The small and disadvantaged business utilization specialists are expressly prohibited from taking any action which would give an offeror an unfair advantage over others, such as discussing or explaining the technical requirements of the solicitation, writing or discussing technical or cost proposals, estimating cost or any actions which are the offerors responsibility as outlined in this solicitation. (See reference C at the end of this solicitation for a complete listing, with telephone numbers, of Small and Disadvantaged Business Utilization Specialists assigned to DCAS Activities.)

### **9.8 Notification of Proposal Receipt**

Proposers desiring notification of receipt of their proposal must complete and include a self addressed and stamped envelope and a copy of the notification from (reference B) in the back of this brochure. If multiple proposals are submitted, a separate form and envelope is required for each. Notifications of receipt of a proposal by the Government does not by itself constitute a determination that the proposal was received on time or not. The determination of timeliness is solely governed by the criteria set forth in section 7.2.

## **10.0 ADDITIONAL INFORMATION**

### **10.1**

This Program Solicitation is intended for informational purposes and reflects current planning. If there is any inconsistency between the information contained herein and the terms of any resulting SBIR contract, the terms of the contract or controlling.

### **10.2**

Before award of an SBIR contract, the Government may request the proposer to submit certain organizational, management, personnel and financial information to assure responsibility of the proposer.

### **10.3**

The Government is not responsible for any monies expended by the proposer before award of any contract.

### **10.4**

This Program Solicitation is not an offer by the Government and does not obligate the Government to make any specific number of awards. Also, awards under this program are contingent upon the availability of funds.

### **10.5**

The SBIR program is not a substitute for existing unsolicited proposal mechanisms. Unsolicited proposals will not be accepted under the SBIR program in either Phase I or Phase II.

### **10.6**

If an award is made pursuant to a proposal submitted under this Program Solicitation, the contractor will be required to certify that he or she has not previously been, nor is currently being, paid for essentially equivalent work by an agency of the Federal government.

### **10.7**

If classified material is requested or classified work is proposed and involved, the Offeror to this solicitation must have security clearance in accordance with the Industrial Security Manual for Safeguarding Classified Information (DOD 5220.22M).